OWNER'S MANUAL

ALTAIR II STEAMER

MODELS:

- **ALTAIR II - 4**
- **ALTAIR II - 6**
- **ALTAIR II - 8**
- **ALTAIR II - 10**
- **ALTAIR II - 12**

- **INSTALLATION**
- **OPERATION**
- **MAINTENANCE**
- **STEAM COOKING GUIDELINES**
- **PARTS LISTS**
- **PARTS & SERVICE**

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1.0 IMPORTANT NOTES FOR SAFETY, INSTALLATION AND OPERATION

!	**WARNING:** This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

!	**WARNING:** Improper installation adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

!	**WARNING:** Never spray water into electrical components.

!	**WARNING:** Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

!	**WARNING:** Please make certain that every operator of this piece of equipment has been instructed on its proper and safe use, and has read and understands all warnings, cautions, and notes in this manual.

This manual should be retained for future reference.

Intended for commercial use only. Not for household use.

It is recommended that this manual be read thoroughly and that all instructions be followed carefully.

2.0 INTRODUCTION

1) Product Description:

Congratulations on purchasing the Market Forge *Altair II*. The *Altair II* is a single compartment countertop or two-compartment floor model steamer featuring pressureless steam cooking, a circulating fan inside the cooking chamber to speed cooking and an automatic preheated waterfill mechanism. *Altair II* also features a clean water reservoir system. The cooking chamber of the *Altair II* is treated with a scratch resistant, non-stick surface. A drain from the rear of the steamer is provided for easy safe draining.

CAUTION: Do not use utensils, steel wool, or other harsh abrasives to clean your steamer. Scratching of the non-stick surface and stainless steel casing may occur.

2) Safety Features:

As with any cooking process, or with any piece of commercial cooking equipment, there are potential hazards to both the operator and the piece of equipment if care is not taken. In designing the *Altair II* steamer, safety features have been built in to protect against many of these potential hazards, but TRAINING OF EACH OPERATOR AND CAREFUL ADHERENCE TO ALL WARNINGS ARE NECESSARY TO ENSURE THE SAFETY OF USERS.

1) **Diagnostic sensor shut-off:** The thermostat controller has a built in diagnostic feature that will automatically shut down all heaters if the sensor probe fails, which will avoid overheating.
2) **High Limit shutoff:** If the steamer runs dry the heaters will shut down.
3) **Overflow:** An overflow standpipe incorporated into the reservoir drain allows water to flow out the back drain of the steamer in case of a waterfill malfunction.

!	**WARNING:** Failure to keep the overflow outlets clear and unobstructed may result in hot water flowing out the door of the steamer. A blocked overflow and drain could allow water to flow to the countertop or floor, which can cause slippery conditions. Modifying the steamer to operate without the overflow standpipe could cause dangerous situations and will void the warranty.

4) **High water sensor:** Two water level sensors are located on the lower backside of the steamer. The lower sensor activates the waterfill mechanism. The upper sensor will shut off water flow if an overflow situation occurs. It is important that both sensors are kept clean so that the stainless part is shiny.

!	**WARNING:** Failure to keep both water level sensors clean may result in hot water flowing out the overflow or the front door of the steamer.

5) **Door open safety switch:** There is a safety switch built into the door frame that shuts down heaters, fan and lights when the door is opened. Once the door is closed, all functions return. THE DOOR MUST BE FIRMLY CLOSED IN ORDER FOR THE STEAMER TO FUNCTION. IF STEAM IS ESCAPING, DOOR IS NOT PROPERLY SHUT AND MAY AFFECT COOK TIMES, PRODUCT QUALITY AND WATER CONSUMPTION.
6) **Time delay relay:** The steamer has two timers built into the electrical system to shut down should the water level system fail. When the steamer is first turned on and the reservoir is empty two countdown timers will begin to count. If it takes longer than 35 seconds for the level of the water to come into contact with the lower water sensor probe, the heaters and the heating light will turn off. After the water comes in contact with the lower probe the heat and heating light will come back on.

3) Dimensions:

- 4-pan: External dimensions are 24” wide x 26¼” high (plus 4”-6” adjustable legs) x 28 ¾“ deep (plus vent pipe).
- 6-pan: External dimensions are 24” wide x 33¼” high (plus 4”-6” adjustable legs) x 28 ¾” deep (plus vent pipe).
- 8-pan: External dimensions are 24” wide x 52½” high (plus 6”-9” adjustable legs) x 28 ¾” deep (plus vent pipe).
- 10-pan: External dimensions are 24” wide x 59½” high (plus 6”-9” adjustable legs) x 28 ¾” deep (plus vent pipe).
- 12-pan: External dimensions are 24” wide x 66½” high (plus 6”-9” adjustable legs) x 28 ¾” deep (plus vent pipe).

4) Service Contacts:

Should repairs be required, a network of authorized agencies is available to assist with prompt service.
A current Directory of Authorized Service Agencies may be obtained by contacting:

Market Forge Industries, Inc.
35 Garvey Street
Everett, Massachusetts 02149-4403
Telephone: (617) 387-4100
Toll Free: (866) 698-3188
Fax: (617) 387-4458
Outside MA Fax: (800) 227-2659
Parts / Price / Service Telephone: (888) 259-7076
Email: custserv@mfii.com
Web Site: www.mfii.com

3.0 SERVICE CONNECTIONS

Models: Altair II – 4 & Altair II – 6

ELECTRICAL (ALTAIR II - 4) 60 Hz

Voltage	pH	kW	Amps
208	1	8	38.5
240	1	8	33.3
208	3	8	22.2
240	3	8	19.3
480	3	7.2	9

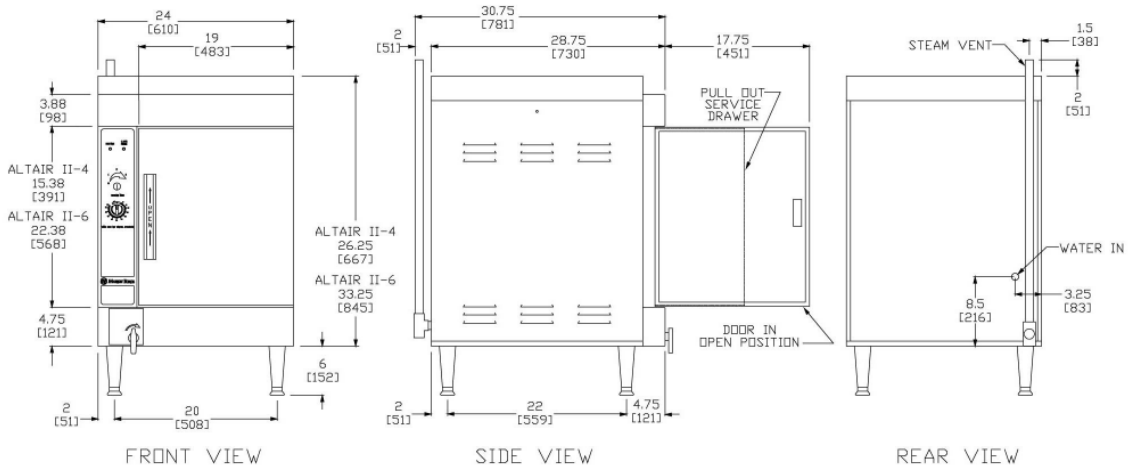
ELECTRICAL (ALTAIR II - 6) 60 Hz

Voltage	pH	kW	Amps
208	1	8	38.5
240	1	8	33.3
208	3	8	22.2
240	3	8	19.3
208	1	9.8	47.1
240	1	9.8	40.8
208	3	9.8	27.2
240	3	9.8	23.6
480	3	9	11.9

Crated Dim. & Wts.	Height	Width	Depth	Cu.Ft.	Lbs.
Altair II - 4	32.25"	34.25"	43"	27.3"	225
Altair II - 6	39.25"	34.25"	43"	33.2"	250

Connections for all Altair II sizes
- Water in: 3/4" male garden hose
- Trough drain: 1/2 MNTP
- Drain out: 1" FNPT

NOTES:
- *Each single compartment has one rear drain connection.*
- *Each compartment, stacked or single, requires a separate water connection.*
- *Water pressure should be set to fill reservoir within 45 seconds.*
- *4" clearance left mandatory, right and rear is recommended.*
- *Location near a floor drain is recommended.*



It is our policy to build equipment which is design certified by U.L., C.S.A. and N.S.F. However, a continuing program of product improvement makes it necessary to submit new models to the agencies as they are developed and consequently not all models bear the appropriate agency labels at all times.

SERVICE CONNECTIONS (continued)

Models: Altair II – 8, Altair II – 10 & Altair II – 12

Crated Dim. & Wts.	Height	Width	Depth	Cu.Ft.	Lbs.
Altair II - 8	58.5"	34.5"	43"	49.5"	450
Altair II - 10	65.5"	34.5"	43"	55.4"	475
Altair II - 12	72.5"	34.5"	43"	61.3"	500

ELECTRICAL (ALTAIR II - 4) 60 Hz

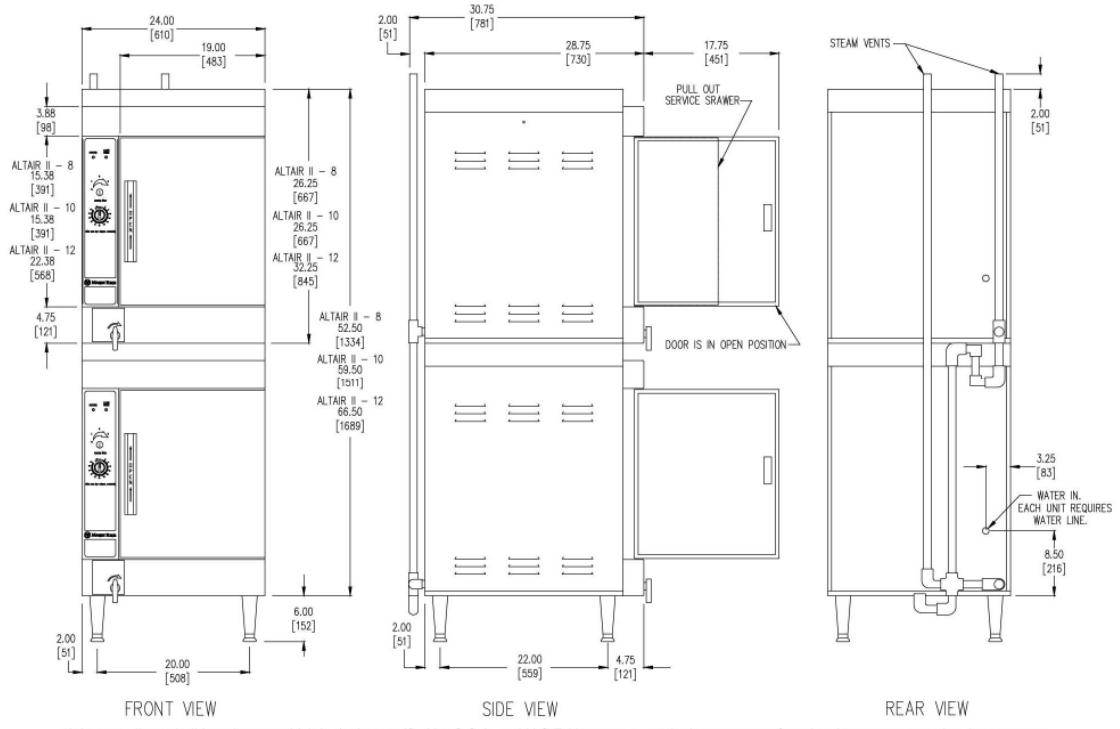
Voltage	pH	kW	Amps
208	1	8	38.5
240	1	8	33.3
208	3	8	22.2
240	3	8	19.3
480	3	7.2	9

ELECTRICAL (ALTAIR II - 6) 60 Hz

Voltage	pH	kW	Amps
208	1	8	38.5
240	1	8	33.3
208	3	8	22.2
240	3	8	19.3
208	1	9.8	47.1
240	1	9.8	40.8
208	3	9.8	27.2
240	3	9.8	23.6
480	3	9	11.9

Connections for all Altair II sizes
- Water in: 3/4" male garden hose
- Drain out: 1" FNPT

NOTES:
- *Each single compartment has a separate rear exiting drain plumbed directly into the stacked steamers main drain/vent line.*
- *Each compartment, stacked or single, requires a separate water connection.*
- *Water pressure should be set to fill reservoir within 45 seconds.*
- *4" clearance left mandatory, right and rear is recommended.*
- *Location near a floor drain is recommended.*
- *Steamer sizes can be mix-matched. Two 4-pan (Altair II-4) stacked together makes a 8-pan steamer (Altair II-8), a 4-pan and 6-pan (Altair II-4 & -6) stacked together makes a 10-pan steamer (Altair II-10), and two 6-pan (Altair II-6) stacked together makes a 12-pan steamer (Altair II-12).*
- *Refer to the electrical charts to the right for proper voltage requirements for each steamer.*
- *Each compartment, single or stacked, requires a separate electrical connection*



*It is our policy to build equipment which is design certified by C.S.A. and N.S.F. However, a continuing program of product improvement makes it necessary to submit new models to the agencies as they are developed and consequently not all models bear the appropriate agency labels at all times.

4.0 INSTALLATION

1) **Damage Inspection:** Reporting shipping damage is the responsibility of the purchaser. Do not discard packaging if filing a freight damage claim. Upon receipt of steamer immediately inspect the exterior of packaging for damage. Remove wrapping. Inspect the exterior of the *Altair II* for visible shipping damage.
2) **Unpacking / removal from pallet:** To remove the steamer from the pallet, carefully cut the strapping.
3) **Legs / caster installation:** Install 4 legs or casters (shipped inside the steamer) into the threaded mounting holes located on the base of the unit. If casters are supplied, locking casters should be on the front of the steamer.
4) **Vent pipe installation (double & single compartment steamers):** Steamers come with the vent piping in rear of unit completely assembled. Two 90° elbows are shipped loose for your convenience that may be useful in running a drain line to your floor trough (if applicable). DO NOT BLOCK VENT PIPE.
5) Make sure the pan racks, water reservoir cover and standpipe installed inside the steamer have not become dislodged during shipping.
6) **Physical location of steamer:** 98% of all maintenance and service can be done from the front or left side. Some local codes may require installation under ventilation, but ventilation is not required in most cases. A minimum of 4" clearance from adjacent equipment on the left side and rear is recommended.

NOTE: A qualified electrician must perform all electrical hookups and meet all local codes. Installation is the responsibility of the purchaser.

7) **Electrical hookups:** The access hole to electrically wire your steamer is located in the bottom right corner (facing the back of the steamer) on the rear panel. Your electrician may install a cord set to make the steamer more portable or the unit may be hard-wired. Please follow local codes when installing the cord set.

NOTE: Stacked units will require 2 separate electrical connections.

8) **Electrical Diagrams:** The electrical diagrams are located on the inside of the left side access panel.
9) **Water hookup:** Steamer requires ½" water line. Termination is ¾" male garden hose connection. Make sure waterline is flushed to remove grit and soldering particles prior to connecting steamer. Dirty water lines may affect solenoid operation.

   Double (stacked) compartment steamers require separate water connections, which may be manifolded. Inadequate water supply may cause one steamer not to fill properly when both steamers are turned on at the same time. If that happens turn on one steamer a few minutes after the first.

   Do not connect to de-ionized water. Probes will not sense the level of the water. Recommended water pressure is 30 – 35 lbs.

CAUTION: Flush incoming water line prior to connecting to steamer. Debris in water lines may cause solenoid valve to malfunction. If solenoid valve is stuck open water must be turned off at the source.

10) **Recommended water quality:** This steamer does not require water filtration in line with the steamer's water line. However, it is important to properly drain and clean your water reservoir at least daily (see 6.0 Cleaning Guidelines in this manual).

NOTE: Water level probes will not sense water level if steamer is connected to a de-ionized water or reverse osmosis system.

11) **Rear drain:** Make sure the 1" rear drain is plumbed to a floor trough or air gap drain. Customer supplies plumbing. However, two 90° elbows are shipped loose with the steamer to be used as needed. The drip trough located under the door is plumbed to the rear of the unit using a ½" copper pipe. This can also be plumbed to a floor trough or air gap drain.

!	**WARNING:** The water may be very hot. It is advisable to allow the water to cool down before draining. Leaving the door open will aid cooling.

12) **Overflow pipe:** An overflow incorporated into the reservoir drain standpipe allows water to flow into the drain line out the back of the steamer in case of a waterfill malfunction.

!	**WARNING:** Failure to keep the overflow standpipe and drain pipe clear and unobstructed may result in an unsafe condition.

13) **Leveling:** Once the legs have been installed and the steamer has been placed in its final location, the unit must be leveled. This is done by turning the base of the leg. Use the top of the steamer casing as a reference. It is recommended to use a level to ensure proper installation.

!	**WARNING:** The steamer must be level in order for the water sensors and overflow outlet to function properly

14) **Rack Installation:** Two pan support racks have been included with the steamer. Both racks are identical; there is no specific left or right side rack. To install, position a rack inside the cooking chamber so that the mounting bracket, with the 'tear-drop' shaped hole, fits over the pre-installed rack screws at the top of the cooking chamber wall. The curved wires on the rack should be facing to the front of the steamer. Repeat this process for the rack mounted on the other side. These racks are designed to be removed easily for cleaning.
15) **Function tests / inspection:** Once your steamer is in place and properly leveled, plumbed and wired, test unit to make sure it is functioning properly.

5.0 STARTUP PROCEDURE

1) Make sure water line is flushed prior to connecting steamer.
2) Make sure water is connected and supplied to the steamer.
3) Using a soft sponge and mild detergent, wipe out the interior of the cooking chamber to remove shipping debris prior to use. Rinse with clean water.

CAUTION: Do not use any abrasive cleaners, utensils or scrubbers on the non-stick coating. Use vinegar and water to clean reservoir. Nylon bristle brushes or soft sponges are recommended.

4) Make sure drain/overflow standpipe is fitted firmly into cooking compartment drain opening.
5) Install reservoir cover with left side drain fitted into hole at side of steamer – tip cover slightly to insert drain fitting into side drain hole. Lip at front of reservoir cover fits over base of door opening.
6) Power on/heat up: Make sure the door is closed, then turn the cooking mode selector to the **1** position. The Amber **HEATING** light on the upper left corner of the control panel will turn on. You may smell smoke from oils left from manufacturing – don't be alarmed, they will burn off quickly. When the **HEATING** light goes out (it takes less than 25 minutes) you are ready to test the steamer.
7) Turn the cooking mode selector switch to the **2** position. The **HEATING** light will go on as heat is called for. You may open the door and inspect the steaming process (note that the **HEATING** light goes out and the heaters are turned off when the door is opened).
8) To shut down your steamer, turn the cooking mode selector to the **OFF** position (⏻).
9) Drain steamer: Make sure that the drain line exiting from the rear of the steamer is plumbed either to a floor trough or air gap drain. **Be sure to allow time for the reservoir water to cool before draining.** Leaving the door open will aid cooling. Remove the water reservoir cover from the cooking compartment by lifting up on the extension tab in

front and the handle in back and tilting slightly to remove the drain pipe from the left side drain hole. **The reservoir cover may be hot – allow to cool before handling**. Remove the standpipe by lifting up until the drain stem is out of the drain opening. Lift out and clean. The drain standpipe and reservoir cover must be replaced before steamer operation or the steamer will not function properly.

6.0 OPERATION

1) **Electrical Connection:** Make sure unit is plugged into a proper receptacle or wired properly and the breaker for the circuit is on.
2) **Water Connection:** Make sure the steamer is properly connected to a water source. Do not connect the unit to de-ionized water; the water probes will not sense the water level. Make sure the water lines are open.
3) **Install drain/overflow standpipe and reservoir cover.** Make sure drain/overflow standpipe is fitted into cooking compartment bottom drain opening and reservoir cover drain is fitted into side drain hole. Lip at front of reservoir cover fits over base of door opening.
4) **Automatic waterfill:** Water will be added to the steamer as needed periodically and it should not run dry until turned off and manually drained.
5) **Clean probe indicator:** Whenever there is a demand for water the clean probe indicator will illuminate; once the water reaches operating level this indicator will go out. If the **CLEAN PROBE** indicator ***comes on and stays on*** the system has detected a fault and will shut down the heaters until the fault has been cleared. Most commonly, this requires cleaning the water sensor probes.

CAUTION: Do not manually refill hot, dry reservoir with cold water. Damage to the interior may result if cold water is added to a hot, dry reservoir.

6) **Condensate trough:** The trough under the door catches water dripping from the door and exits the steamer at the rear.
7) **Power on / heat up:** Make sure the door is closed then turn the cooking mode selector switch to the desired setting, **1**, **2** or **3**. The steamer will begin warming up. The Amber colored **HEAT** light will turn on and remain on until the pre-heating is completed. Throughout the cooking process the **HEAT** light will come on periodically whenever the heaters are on.

CAUTION: If the door is open, nothing will happen. Close the door and the steamer will turn on and begin warming up.

8) **Door operation:** The door must be closed at all times while cooking. If the door is opened during cooking, the heaters will shut down and the Amber **HEAT** light will go off until the door is closed. You may open the door at any time to check the progress of cooking, stir product and add or remove cooking pans. If the door handle is loose the door is not firmly shut; re-shut the door by slamming firmly.
9) **Pan combinations:**

Pan Size	Quantity per 4-pan steamer	Quantity per 6-pan steamer
12 x 20 x 1 ¼	8	12
12 x 20 x 2 ½	4	6
12 x 20 x 4	2	4

The Altair II steamer accommodates 4” and 6” deep pans. However, for best steam cooking performance 1 ¼” or 2 ½” deep pans work best. Other combinations of these pan sizes will fit in your steamer. The steamer will accommodate gastronorm pans.

10) **Cooking:** When ready to cook turn the cooking mode selector dial to the desired setting:

Setting	Temperature	Use for
1	180°	Green vegetables, delicate egg dishes, and seafood for

		higher yield. Cook times will be slower than steaming.
2	212°	Steam cooking
3	steam plus radiant heat	Heavy dense foods like meat or potatoes, retherm frozen foods.

NOTE: If starchy food products (potatoes, pasta) cause water to get frothy add 2 tablespoons of cooking oil to the water to control foaming.

11) Shut down, draining and cleaning of steamer.

i. **Shut down:** To shut down the steamer at the end of the day just turn the cooking mode selector dial to ⏻ (OFF).

ii. **Water reservoir draining:** To drain the reservoir, remove the water reservoir cover by lifting up on the extension tab in front and the handle in back and tilting slightly to remove the drain pipe from the left side drain hole. Lift out and clean. Remove the drain standpipe out of the drain and clean.

!	**WARNING:** The reservoir water may still be hot. It is advisable to let the water cool down prior to draining.

NOTE: Opening the steamer door will speed the cooling process. It is also advisable to leave the steamer door open when not in use. This will lengthen the life of the door gasket.

7.0 CLEANING GUIDELINES

A. Daily Cleaning

Once the power is off and the reservoir has been drained, a simple cleaning process should be followed:

!	**WARNING:** The cooking chamber is designed to retain heat. It may still be hot to the touch when cleaning. Wear protective gloves, or wait for the surface to cool before cleaning. Do not add cold water to a hot, empty cooking chamber until it has cooled down, or damage may result.

- Lift the pan racks up and off mounting screws, and remove from the steamer for cleaning.
- Lift reservoir cover out of cooking chamber compartment, clean cover.
- Remove the drain/overflow standpipe, clean, making sure overflow holes are clear and open.
- Using a soft sponge, clean the non-stick coating on the interior of the cooking chamber.
- Clean the door gasket with gentle soap and water and allow to air dry.

NOTICE: Only use mild soap, vinegar, and water to clean your steamer. Do not use abrasive utensils, caustic cleaners, or products containing chlorine, lye, or phosphorus (such as *Lime-A-Way*). After cleaning, rinse thoroughly by wiping with a wet cloth dampened with fresh water. Never spray water on your steamer.

FAILURE TO FOLLOW PROPER INSTRUCTIONS MAY CAUSE AN UNSAFE CONDITION AND/OR DAMAGE YOUR STEAMER, AND WILL VOID YOUR WARRANTY.

- Rinse the cooking chamber and door area with clean water. Rinse the cavity. Wipe with clean towel or soft sponge.
- To remove the white mineral deposits at and below the water line, spray vinegar directly on the mineral build-up using a spray bottle. For heavy mineral deposits, replace drain/overflow standpipe, pour two cups of vinegar in the water reservoir and turn on steamer to add enough water to cover the white minerals, let soak for

half an hour or overnight. Loosen mineral deposits with a nylon bristled brush. Drain, wipe and rinse. **Use water and vinegar to clean reservoir.**

- Make sure two stainless probes on lower backside of cooking chamber interior are clean.
- Wipe out the condensate trough located under the door. Remove food particles. Make sure the drain is kept clear.

NOTE: It is always advisable to leave the steamer door open when the unit is shut down for the evening. This will extend the life of your gasket.

NOTE: It is normal for the white lime to collect at the water line and in the reservoir area. Liming is easily removed with daily cleaning – vinegar is very effective and will not damage the cooking chamber. **Use only vinegar and water to clean reservoir on a daily basis.**

- Replace the drain/overflow standpipe and the reservoir cover. The reservoir cover and the drain/overflow standpipe must be replaced or the steamer will not function properly.
- Your steamer is now ready for another day's work!

B. Monthly Cleaning

It is recommended to use the Stellar Descaling Powder to clean your steamer on a monthly basis or whenever necessary.

- Make sure the steamer is off and cool.
- Drain water from the cooking cavity and wipe away any food debris.
- Make sure the drain is plugged.
- Pour one pound of descaling powder per steamer into the bottom of the cooking cavity.

NOTE: One pound is equal to 16 scoops (measuring scoop included), or one-half of a 2lb. jar of descaling powder.

For Capella (manual water fill) Steamer:

- Pour 2 ½ gallons water into the bottom of the cooking chamber and set the control to Steam (**#2**) position.
- Allow the unit to reach steaming temperature and continue steaming for one hour. It may be necessary to add water before the hour is complete. If this is the case, add water, return to steaming temperature, and continue steaming until a total of one hour steaming has been reached.
- Turn the unit off, and allow it to cool for one hour.
- Drain the unit, and rinse the entire cooking cavity thoroughly
- If the unit is heavily scaled, it may be necessary to repeat the process.

For Altair and Sirius (automatic water fill) Steamers:

- Set the control to Steam (**#2**) position. This will automatically fill the unit with water.
- Allow the unit to reach steaming temperature and continue steaming for one hour.
- Turn the unit off, and allow it to cool for one hour.
- Drain the unit, and rinse the entire cooking chamber thoroughly.
- If the unit is heavily scaled, it may be necessary to repeat the process.

To reorder Stellar Descaling Powder, Part Number 92-1009 (*case of four 2 lb. bottles*), contact your local Parts and Service agency or:

Market Forge Industries, Inc.
35 Garvey Street
Everett, Massachusetts 02149-4403
Telephone: (617) 387-4100
Toll Free: (866) 698-3188
Fax: (617) 387-4458
Outside MA Fax: (800) 227-2659
Parts / Price / Service Telephone: (888) 259-7076
Email: custserv@mfii.com
Web Site: www.mfii.com

8.0 STEAM COOKING GUIDELINES

A. Cooking with atmospheric / pressureless steam:

- Atmospheric or pressureless steaming is perfect for a la carte cooking. The door can always be opened during cooking to add or remove pans of food, to season food or to check on its progress.
- Multiple products can be cooked at one time because there is no crossover of cooking flavors in atmospheric steam. Large and small portions of food can be cooked at the same time.
- Less attention is required to cooking foods and over-cooking is rare.

B. Recommended Uses:

- a la carte
- thawing
- simmering
- preserving
- blanching
- poaching
- stewing
- rethermalizing

C. Typical Foods:

- casseroles, fresh or frozen
- desserts
- fruits
- pasta
- potatoes
- rice
- vegetables, fresh or frozen
- and much more
- cereals
- eggs
- meats
- poultry
- prepared foods
- sauces
- seafood, fresh or frozen

D. Tips on cooking frozen product

1) Preheat cooking compartment.
2) Break up frozen vegetables or product, if possible.
3) If product is an ice block, set it in the pan on its narrowest side. This allows the steam to contact a greater surface area.
4) Thawing is faster and better for the food in atmospheric steaming.
5) Make sure frozen product is uniform in size to get best results.
6) Season vegetables AFTER steaming.
7) Less seasoning is required because steaming preserves natural flavors.
8) When reheating prepared foods, stir occasionally to speed heating.
9) Shallower pans will allow faster cooking times.

E. Blanching:

Many foods can be blanched in atmospheric steam before being finished in ovens, fryers, or on grills and griddles. This reduces total cooking time, helps ensure complete cooking and a moist product. Potatoes, poultry and seafood are excellent examples. Blanching before frying reduces grease absorption by food products.

F. Tips on pan use

1) For faster cook times, 2 ½" deep perforated pans are recommended.
2) It is not necessary and we do not recommend covering most pans of product. When cooking with only one pan, place it in the center of the cooking chamber.

3) Use solid pans where appropriate: scrambled eggs, rice, beans, dehydrated foods, prepared casseroles, sauces, cake or other desserts (you can bake a cake in atmospheric steam), and when you want to prevent food from dripping on a lower pan.
4) When cooking proteins (meat, poultry or seafood) use a solid catch pan under the perforated pan. Accumulated juices can be used for soup stock, gravy or broth.
5) Protein foods (meat, poultry or seafood) can be cooked in perforated or solid pans. If you are batch-cooking protein foods use perforated pans and place a solid pan on the bottom rail. All the juices will then accumulate in this pan for later use and to keep them out of the water reservoir.
6) When atmospheric steaming, a pan cover can increase the cooking time up to 400%. Items such as frozen casseroles, meat loaf, or sauces can be covered to avoid excess condensation.
7) Root vegetables should be steamed in a perforated pan.
8) Eggs can be hard cooked out of the shell and then chopped to avoid peeling shells.
9) Always cook potatoes in perforated pans. This allows steam to circulate properly.

G. Other helpful hints

1) Got a tough cleaning problem, pot, pan, utensil? Put it in your steamer to loosen burned-on food; it makes washing much easier.
2) Stale or frozen bread can be thawed or renewed in your steamer.
3) Allow adequate spacing between pans for even steam circulation. Your pan rails and the shape of the steamer walls are designed to maximize steam flow. Do not try to load more than the rack is designed for. Maximum capacity loads cook best with perforated pans.
4) Loosely packed pans will cook faster than tightly packed pans.
5) To skin tomatoes, oranges etc. more easily, steam for a short time, then chill in cold water.
6) When steaming pasta, shrimp, or ground meat, nesting a perforated pan in a solid pan works well. Lift out the perforated pan to drain.
7) Never have the water high enough or a pan low enough to touch water. Allow enough space for steam circulation. Steam has 6 times more energy than boiling water – use the steam to cook.
8) When possible, cook in two shallow pans instead of one deeper one – it cooks faster and you avoid bruising the product.
9) If using ½ size or smaller pans on one level, with different products, load the faster cooking items last, this will make unloading easier.
10) In steam cooking, load size has little effect on the cooking time. For the highest efficiency cook with full loads.
11) Pre-cook roasts, especially fat-encrusted roasts, in steam for 1/3 of their cooking time, then place in oven. Juices are sealed in, there is more flavor, more nutrients are retained and the roast shrinks less.
12) Cook whole poultry the same way, only cook it until it is nearly completed and allow just enough time in the oven to finish and brown.

9.0 WARNINGS AND CAUTIONS

A. Warnings

1) Failure to keep the overflow outlets clear and unobstructed may result in hot water flowing out the door of the steamer. A blocked overflow and drain could allow water to flow to the countertop or floor, which can cause slippery conditions. Modifying the steamer to operate without the overflow standpipe could cause dangerous situations and will void the warranty.
2) Failure to keep both water level sensors clean may result in hot water flowing out the rear overflow or the front door of the steamer.

3) A qualified electrician must perform all electrical hookups and meet all local codes. Installation is the responsibility of the purchaser.
4) Failure to keep the overflow standpipe and drain clear and unobstructed may result in an unsafe condition.
5) The steamer must be level in order for the water sensor and overflow outlet to function properly.
6) The reservoir water may still be hot. It is advisable to let the water cool down prior to draining.
7) The cooking chamber is designed to retain heat. It may still be hot to the touch when cleaning. Wear protective gloves, or wait for the surface to cool before cleaning. Do not add cold water to a hot empty cooking chamber until unit has cooled down or damage may result.

B. Cautions

1) Do not use utensils, steel wool, or other harsh abrasives to clean your steamer. Scratching of the non-stick surface and stainless steel casing may occur.
2) Flush incoming water line prior to connecting to steamer. Debris in water lines may cause solenoid valve to malfunction. If solenoid valve is stuck open water must be turned off at the source.
3) Do not use any abrasive cleaners, utensils or scrubbers on the non-stick coating – this will damage the coating. Use vinegar and water to clean reservoir. Nylon bristle brushes or soft sponges are recommended.
4) Do not manually refill hot, dry reservoir with cold water. Damage to the interior may result if cold water is added to a hot, dry reservoir.

10.0 WIRING DIAGRAM

A. 208/240 Volts

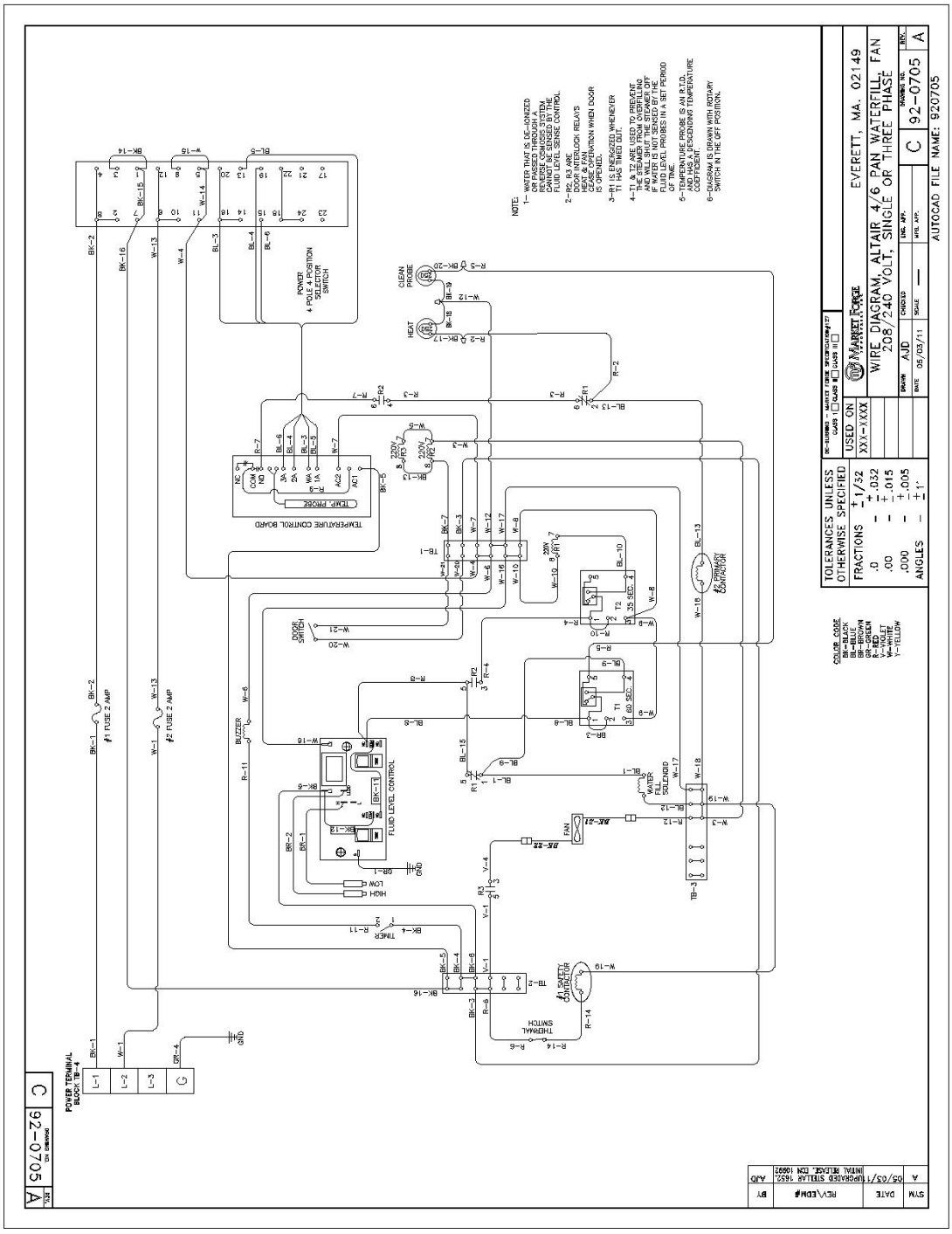

WIRE DIAGRAM, ALTAIR 4/6 PAN WATERFILL, FAN
208/240 VOLT, SINGLE OR THREE PHASE
EVERETT, MA. 02149
C 92-0705 A
AUTOCAD FILE NAME: 920705
USED ON XXX-XXXX
TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS ± 1/32
.0 ± .032
.00 ± .015
.000 ± .005
ANGLES ± 1°
NOTE:
1– WATER THAT IS DE–IONIZED (RO/DI) THROUGH A REVERSE OSMOSIS SYSTEM CANNOT BE SENSED BY THE FLUID LEVEL SENSING CONTROL.
2–R2, R3 ARE DOOR INTERLOCK RELAYS THAT ARE USED TO CEASE OPERATION WHEN DOOR IS OPENED.
3–R1 IS ENERGIZED WHENEVER THE TIMER IS ON.
4–T1 & T2 ARE USED TO PREHEAT THE STEAMER FROM OVERFILLING AND WILL SHUT THE STEAMER OFF AFTER FILLING WATER TO THE PROPER FLUID LEVEL PROBES IN A SET PERIOD OF TIME.
5–THE TEMPERATURE PROBE IS AN R.T.D. AND HAS A DESCENDING TEMPERATURE COEFFICIENT.
6–DIAGRAM IS DRAWN WITH ROTARY SWITCH IN THE OFF POSITION.
POWER TERMINAL BLOCK TB-4
POWER 4 POLE 4 POSITION SELECTOR SWITCH
TEMPERATURE CONTROL BOARD
TEMP. PROBE
FLUID LEVEL CONTROL
WATER SOLENOID
FAN
HEAT PROBE
CLEAN PROBE
DOOR SWITCH
THERMAL SWITCH
#1 FUSE 2 AMP
#2 FUSE 2 AMP
TIMER
BUZZER
GND
HIGH
LOW
COLOR CODE
BK–BLACK
BL–BLUE
BR–BROWN
G–GREEN
R–RED
V–VIOLET
W–WHITE
Y–YELLOW
05/03/11 UPGRADED SIRIUS 1652. MANUAL REMADE. COM 10892
AJD

Figure 1

B. 480 Volts

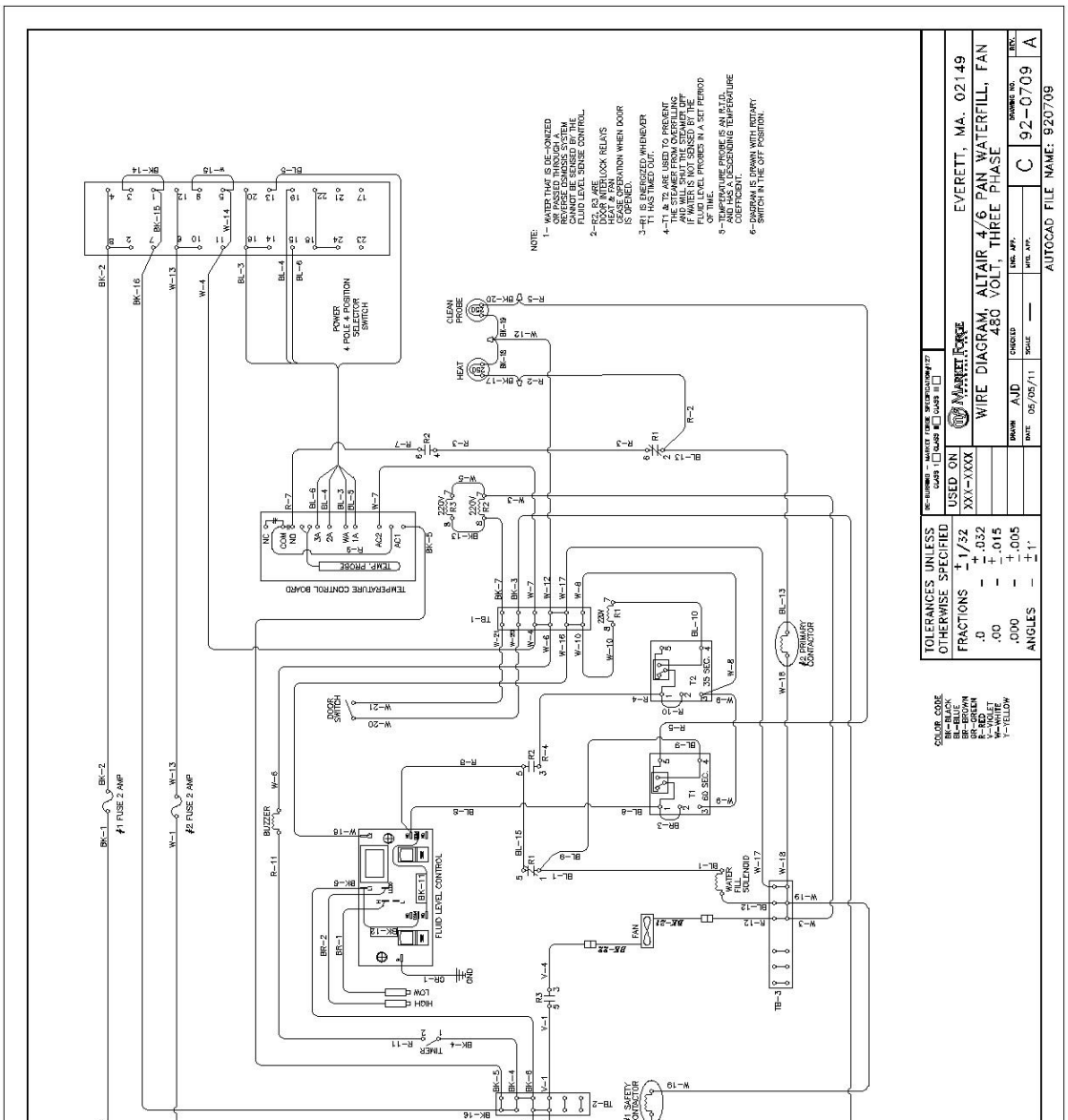


Figure 2

11.0 ILLUSTRATED PARTS LIST

A. Cabinet Assembly

Figure 3
Front View

Figure 4
Control Panel View

ITEM No.	PART No.	DESCRIPTION	QTY
1	92-0185	LED Light, Color Red	1
2	92-0184	LED Light, Color Amber	1
3	92-0125	Rotary Switch, 4 Position	1
4	92-0137	Timer, 240v, 60 Minutes	1
5		Door Assembly (*See Section B below for details*)	1

Cabinet Assembly (continued)

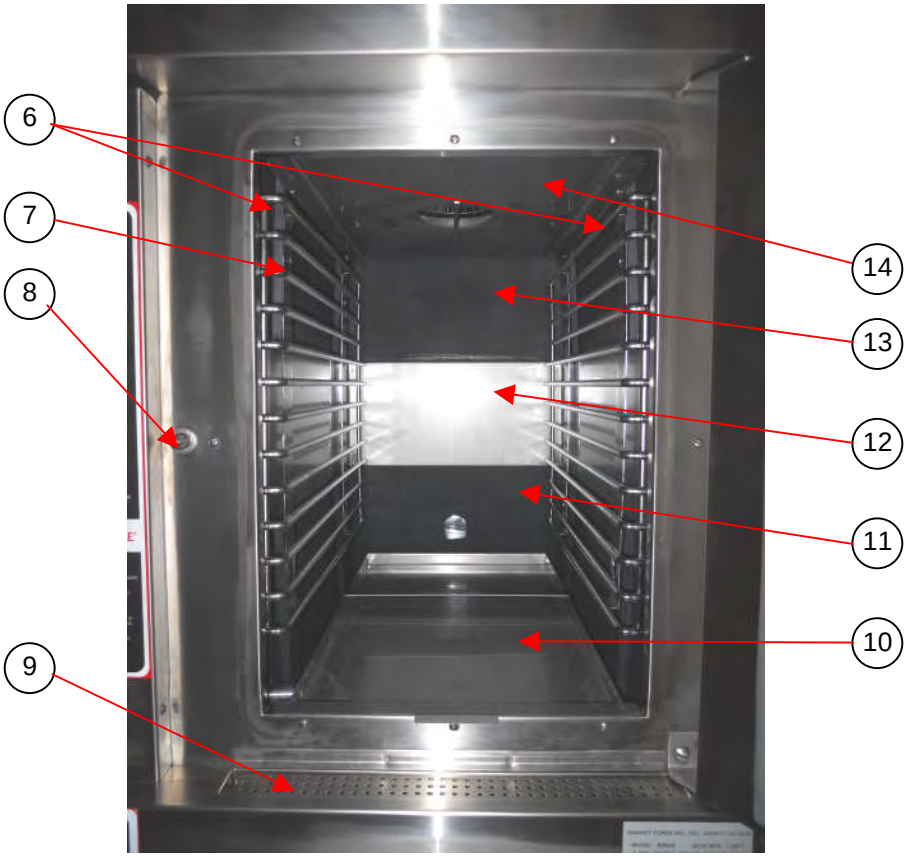


Figure 5

ITEM No.	PART No.	DESCRIPTION	QTY
6	92-0116 92-0160	Wire Pan Rack (*4 Pan unit*) Wire Pan Rack (*6 Pan unit*)	2
7	92-0082	Screw, ¼ - 20 x ¾, Oval Head, Stainless Steel	4
8	97-6178	Door Striker #8-5021	1
9	92-0428	Condensate Trough Guard	1
10	92-0014	Clean Reservoir Pan	1
11	92-0050	Bottom Oven Chamber Casting	1
12	92-0404	Casting Bolster (*6 Pan unit only*)	1
13	92-0076	Top Oven Chamber Casting	1
14	92-0011	Fan Baffle	1

B. Door Assembly

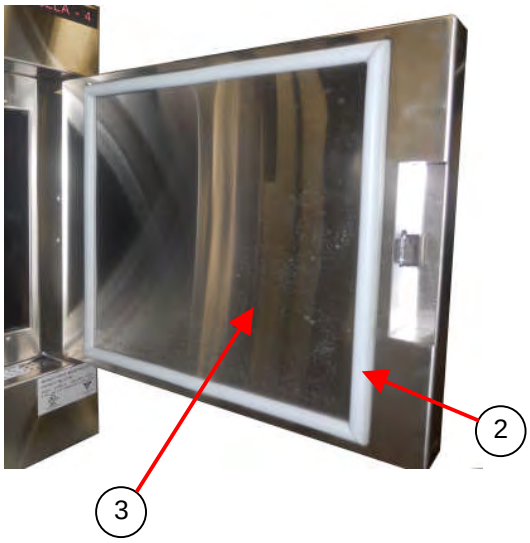


Figure 6
Inside View of Door

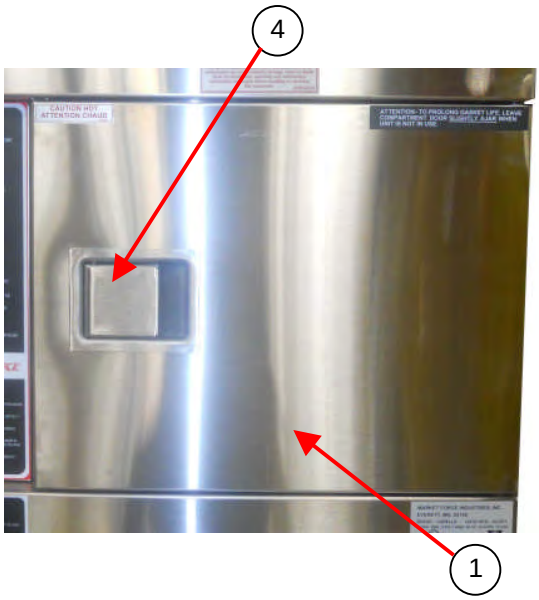


Figure 7
Outside View of Door

ITEM No.	PART No.	DESCRIPTION	QTY
1	92-0548	Door Assembly (4 Pan)	1
1	92-0549	Door Assembly (6 Pan)	1
2	92-0063	Door Gasket (4 Pan)	1
2	92-0159	Door Gasket (6 Pan)	1
3	92-0380	Gasket Plate (4 Pan)	1
3	92-0381	Gasket Plate (6 Pan)	1
4	92-0064	Paddle Latch Assembly	1

C. General Assembly

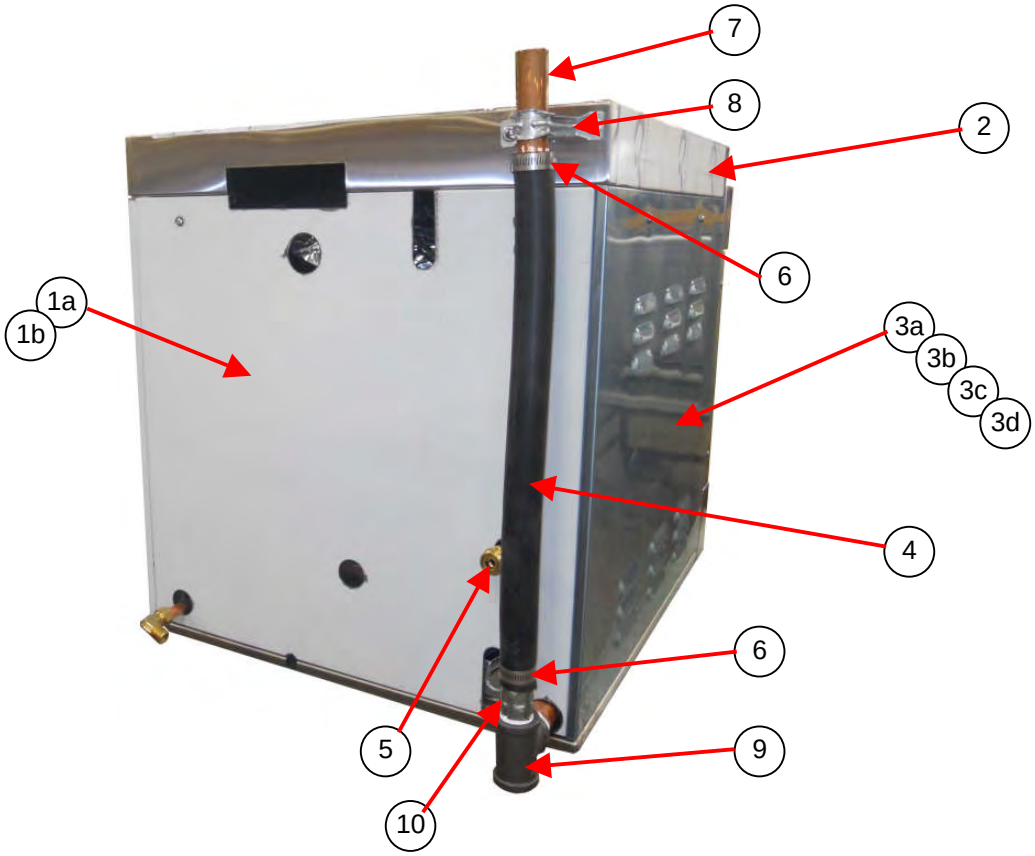


Figure 8
Single Oven Rear View

ITEM No.	PART No.	DESCRIPTION	QTY
1a	92-0008	Rear Panel (4 Pan)	1
1b	92-0357	Rear Panel (6 Pan)	1
2	92-0053	Top Cover Panel	1
3a	92-0727	Left Side Panel (4 Pan)	1
3b	92-0726	Right Side Panel (4 Pan) - *Not Shown*	1
3c	92-0729	Left Side Panel (6 Pan)	1
3d	92-0728	Right Side Panel (6 Pan) - *Not Shown*	1
4	10-0239	Rubber Hose, 1” Dia (4 Pan Unit = X ft, 6 Pan Unit = Y ft)	1
5	92-0060	Garden Hose Adapter	1
6	10-4137	Hose Clamp	2
7	92-0028	Copper Tubing, 1” Dia. x, 4” Length	1
8	92-0700	Pipe Hanger Clamp	1
9	10-8045	1” Black Tee	1
10	08-1207	1” chrome Hose Barb	1

General Assembly (continued)

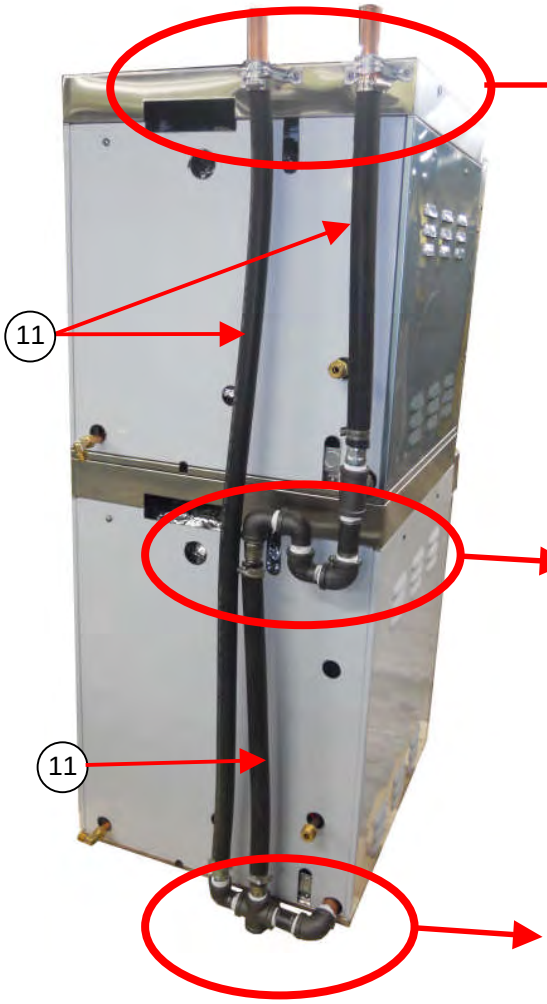


Figure 9
Stacked Oven Rear View

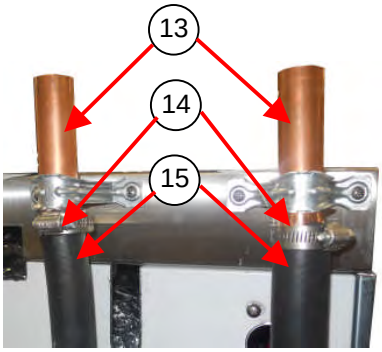


Figure 10
Stacked Oven (Top Section)

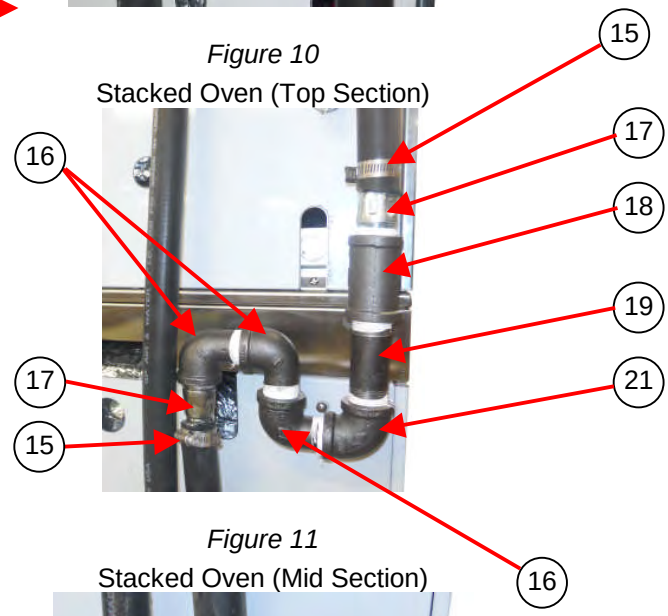


Figure 11
Stacked Oven (Mid Section)

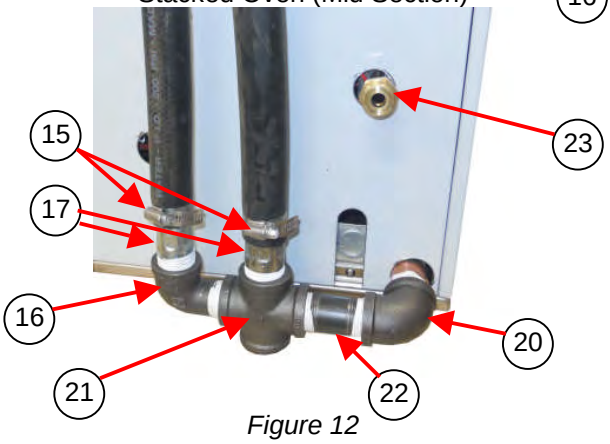


Figure 12
Stacked Oven (Bottom Section)

General Assembly (continued)

ITEM No.	PART No.	DESCRIPTION	QTY
11	10-0239	Rubber Hose, Black, 1” Dia	
12	92-0367	Stacking Collar	1
13	92-0028	Copper Tubing, 1” Dia. x, 4” Length	2
14	92-0700	Pipe Hanger Clamp	2
15	10-4137	Hose Clamp	6
16	92-0683	1”, 90° Street Elbow	4
17	08-1207	1” chrome Hose Barb	4
18	10-8045	1” Black Tee	1
19	92-0681	1” x 4” Black Iron Nipple	1
20	92-0682	1” Black Iron 90° Elbow	2
21	92-0685	1” Black Cross	1
22	92-0684	1” x 3” Black Iron Nipple	1
23	92-0060	Garden Hose Adapter	1

D. Control Panel Components

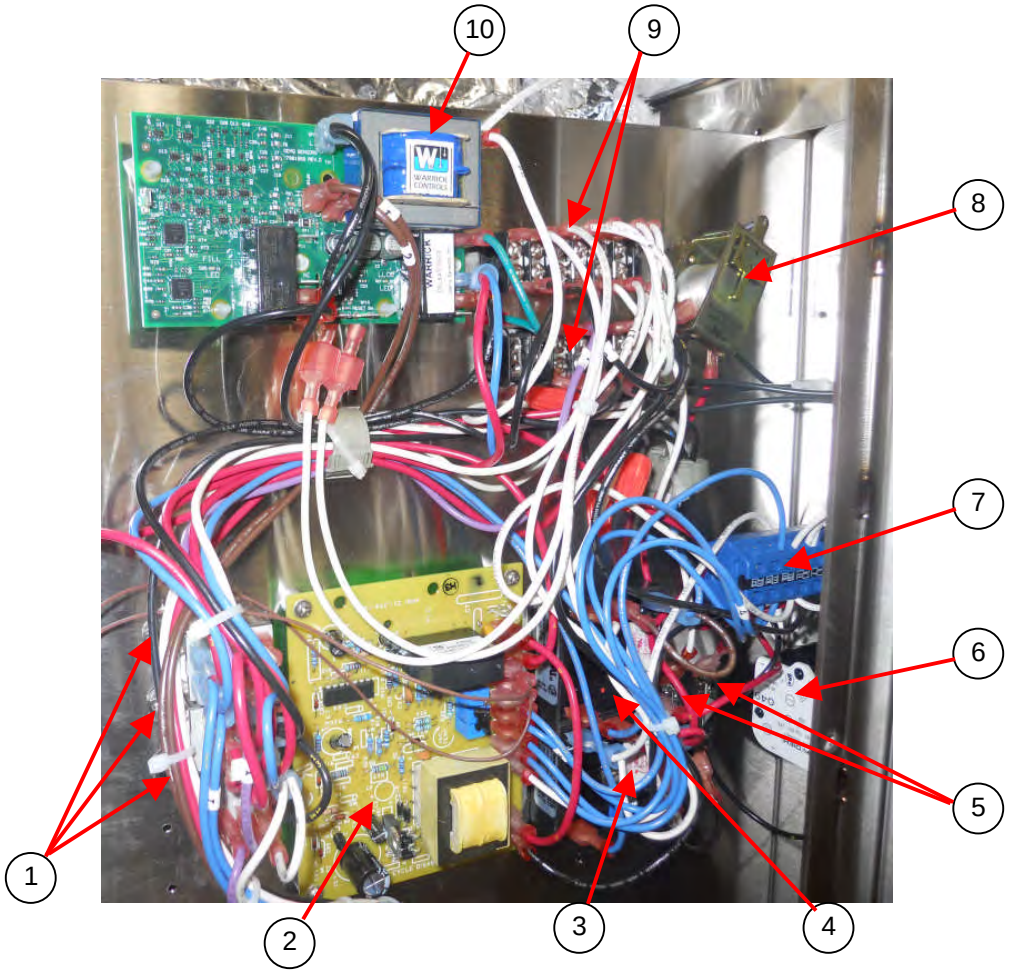


Figure 13

ITEM No.	PART No.	DESCRIPTION	QTY
1	92-0189	Relay, DPDT 220V	3
2	92-0183	Temperature Controller, 240v	1
3	92-0187	Timer, Delay, 220v, 1-60 Seconds	1
4	92-0188	Timer, Delay, 220v, 60 Seconds	1
5	92-0414	Fuse, 2 Amp	2
6	92-0137	Timer, 240v, 60 Minutes	1
7	92-0125	Rotary Switch, 4 Position	1
8	92-0186	Buzzer, 240v	1
9	92-0140	Terminal Strip, 6 Pole	2
10	92-0181	Waterfill Controller, 208/240v	1

Control Panel Components (continued)

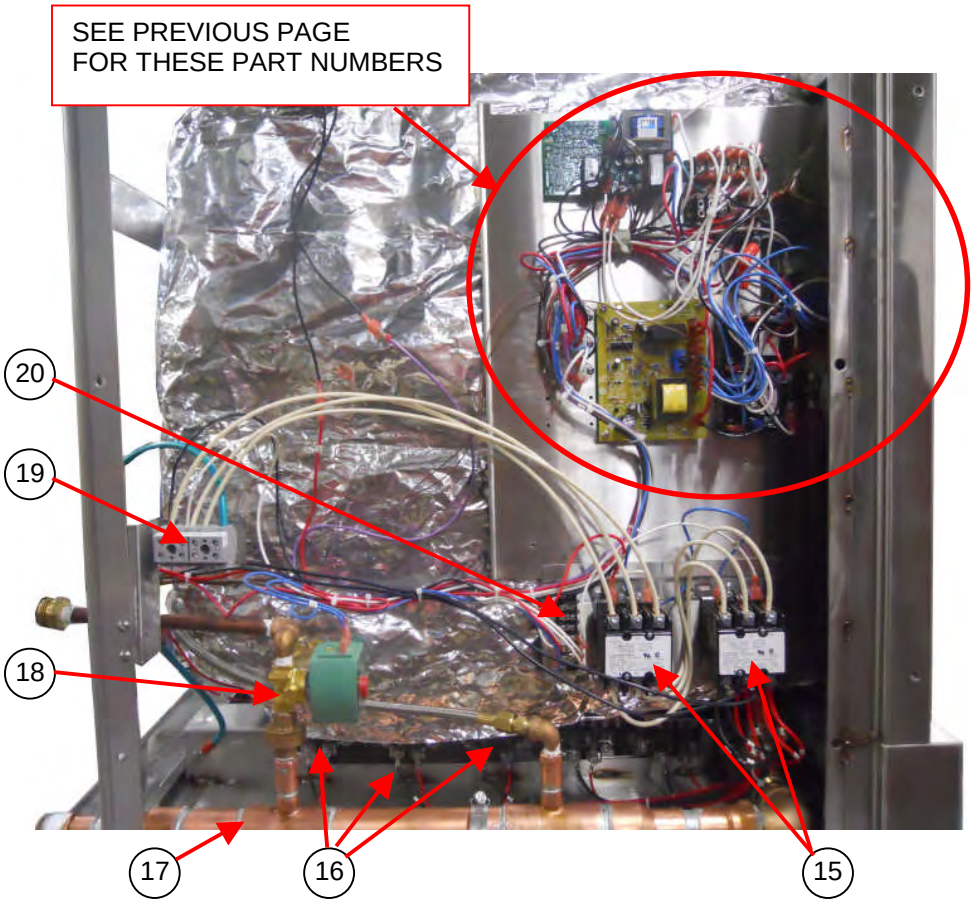


Figure 14

ITEM No.	PART No.	DESCRIPTION	QTY
15	10-5943	Contactor, 240v	2
16	92-0199 92-0411	Heater Element, Alum, 208v (*for all 208v units*) Heater Element, Alum, 240v (*for all 240v & 480v units*)	4 (*4 pan units*) 5 (*6 pan units*)
17	92-0354	Heat Exchanger, Drain Assembly	1
18	92-0172	Solenoid Valve, 230V	1
19	92-0069	Terminal Block	1
20	92-0140	Terminal Strip, 6 Pole	1

E. Convection Fan and Motor Components

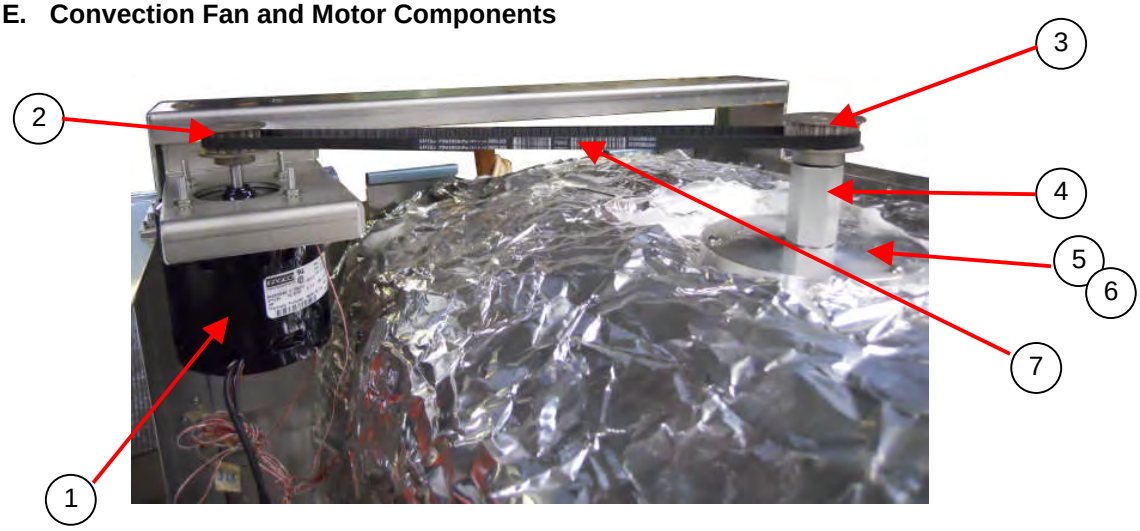


Figure 15
Fan Motor and Pulley Assembly

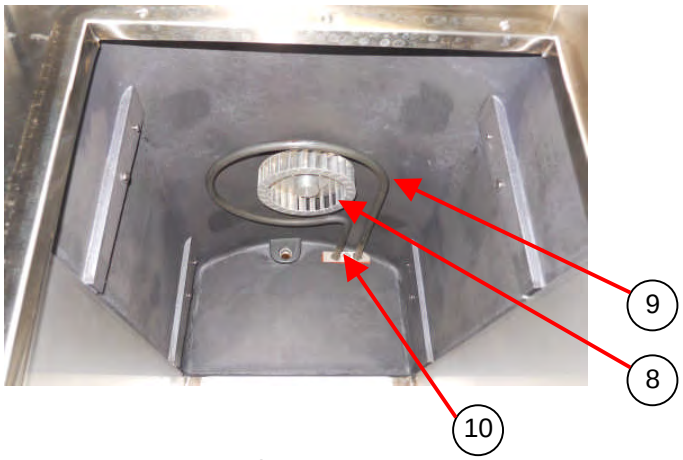


Figure 16
Convection Fan & Inside Tubular Heater

ITEM No.	PART No.	DESCRIPTION	QTY
1	08-6905	Fan Motor (230V)	1
2	08-5601	Pulley, .25” Dia. Bore, (*22 Teeth*)	1
3	08-5600	Pulley, .25” Dia. Bore, (*18 Teeth*)	1
4	92-0606	Mounting Pedestal	1
5	92-0605	Mounting Plate	1
6	92-0676	Blower Drive Insulation (*Not Shown*)	1
7	08-1414	Belt	1
8	92-0016	Convection Fan (Blower Wheel)	1
9	92-0704	Tubular Heater, (*for all 240Vunits*)	1
9	92-0731	Tubular Heater, (*for all 480V units*)	1
10	92-0732	Gasket, Tubular Heater	1